## **Abstract of the Disclosure**

A method and apparatus for generating a two dimensional image of a cervix from a three dimensional hyperspectral data cube includes an input processor constructed to normalize fluorescence spectral signals collected from the hyperspectral data cube. The input processor may be further constructed to extract pixel data from the spectral signals where the pixel data is indicative of cervical tissue classification. The input processor may be further configured to compress the extracted pixel data. A classifier is provided to assign a tissue classification to the pixel data. A two dimensional image of the cervix is generated by an image processor from the compressed data, the two dimensional image including color-coded regions representing specific tissue classifications of the cervix.